

Ecosystem Amendment Update – Institutional Aspects of Ecosystem Restoration Agenda Item 8

November 14, 2018



Guide to Today's Discussion

- Review of Progress to Date
- Ecosystem Amendment Context and Vision
- Implementation Approach
- Practical Aspects and Case Studies



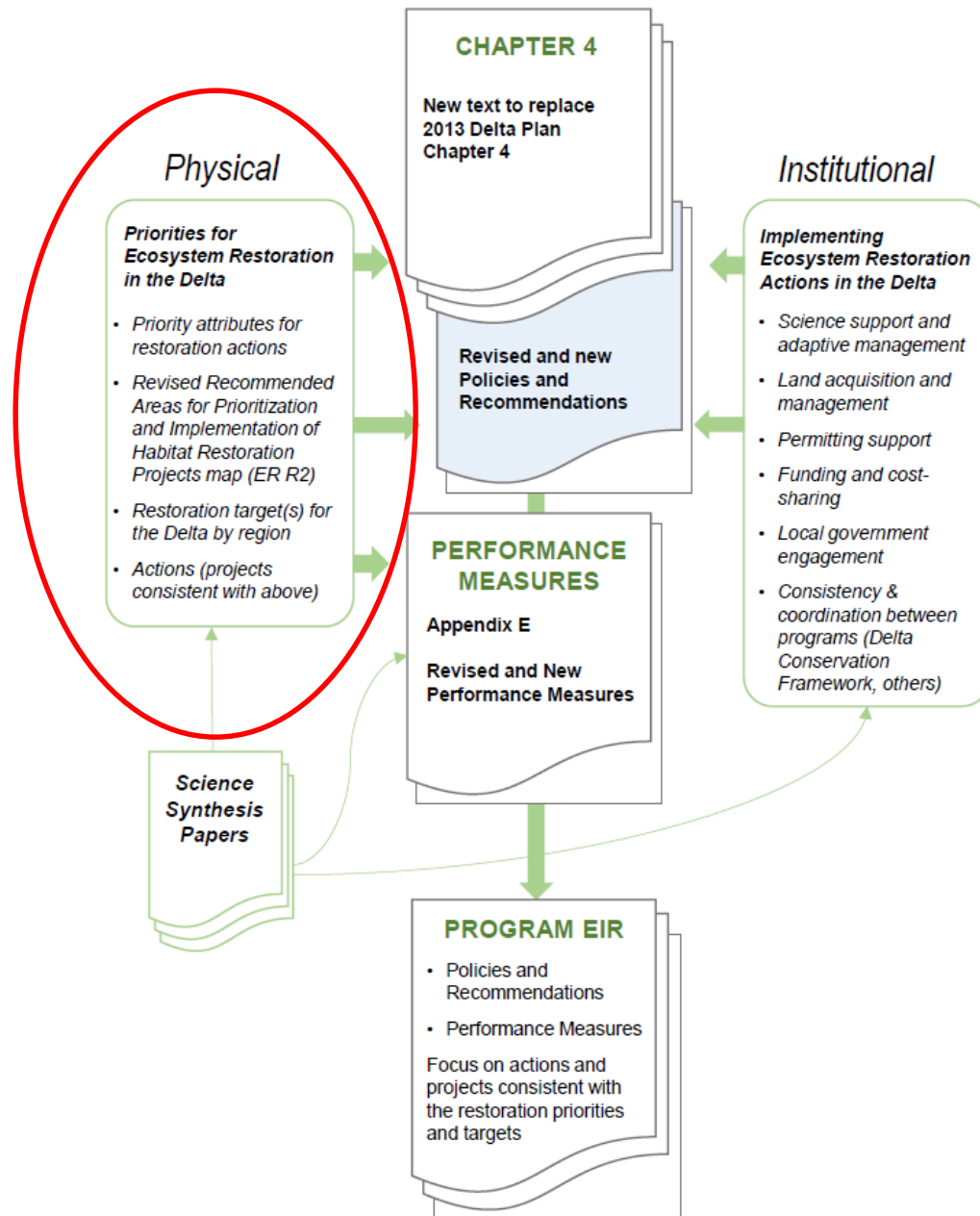
Review of Progress to Date

- **September to November 2017:** Listening sessions and outreach
- **October 2017:** Presentation to Council on Scope
- **February 2018:** Presentation to Council on Synthesis Papers and Public Workshop in Walnut Grove
- **March 2018:** Release of Science Synthesis Papers
- **July 2018:** Presentation to Council on Policy/Content Development and “Blueprint”
- **August/September 2018:** Presentation to Council on Priority Actions/ Physical Attributes
- **November 2018:** Presentation to Council on Institutional/Implementation Aspects
- **January/February 2019:** Presentation to Council on Draft Chapter 4 Content

Next Steps in the Process

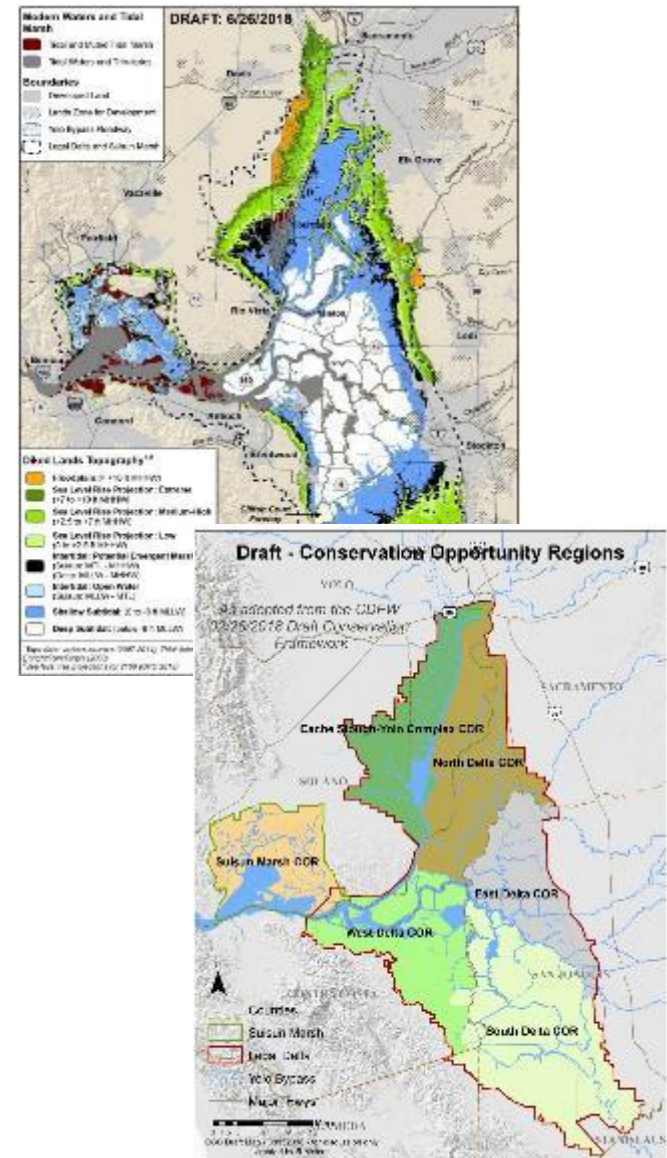
- **February 2019** – Council meeting discussion on Public Draft Ecosystem Amendment; Public comment period on Draft Ecosystem Amendment
- **February/March 2019** – Public workshop on Draft Ecosystem Amendment
- **April 2019** – Council meeting and project description approval
- **April – Fall 2019** – CEQA including public comment and meetings

Ecosystem Amendment Blueprint



Policy Approaches Discussed at the August Council Meeting related to **Physical Priorities for Restoration**

- Achieve the Delta Reform Act vision for the ecosystem – Go beyond mitigation
- Emphasize ecosystem function
- Address sea-level rise and subsidence
- Leverage recovery and conservation plans
- Identify restoration/conservation opportunity regions



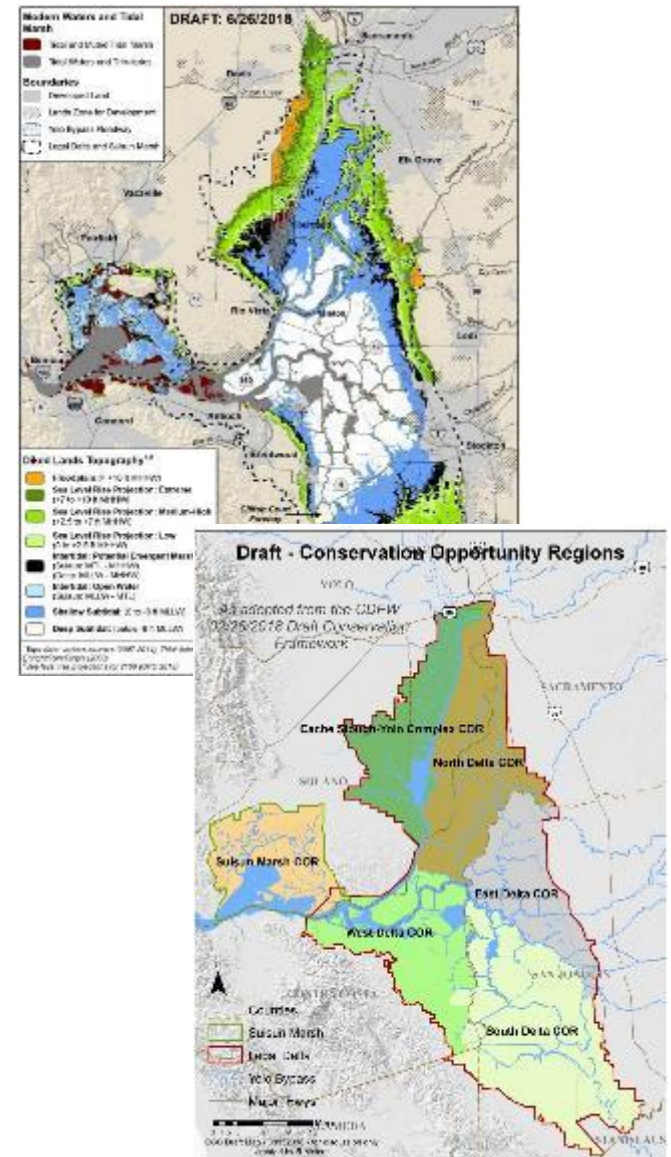
Proposed Revisions to Policies/Recommendations Discussed at the September Council Meeting related to Physical Priorities for Restoration

Priorities for Ecosystem Restoration in the Delta		
Core Strategy	Policy/Recommendation	Proposed Change from 2013 DP
Create More Functional Flows	ER R1	No Change
	ER P1	No Change
Restore Habitat	ER P2	Update elevation map based on new data ; Update Appendix 3 content
	ER P3	Update map of recommended areas for projects
	ER P4	Update map to reflect setback levee opportunities and priority fish corridors
	ER R2	Delete and add new policy ER P6 to reflect restoration priorities
	ER P6	New policy

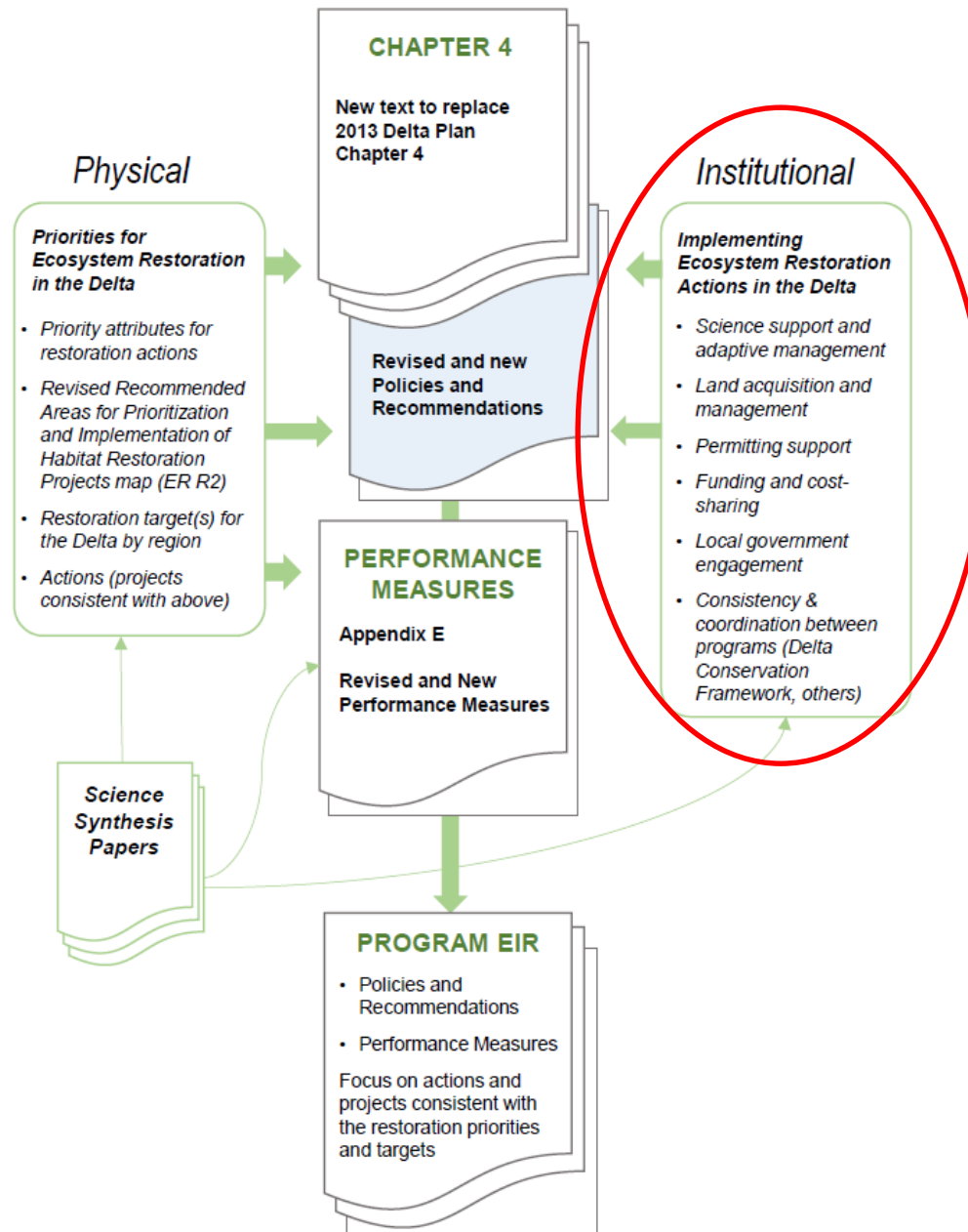
The Path Forward

Council staff is using the feedback from the August/September Council meetings to:

- Refine problem statements
- Develop new Appendix 3 content
- Meet with agencies and interested parties to discuss approach
- Develop Chapter 4 narrative based on approach



Ecosystem Amendment Blueprint



The Delta Reform Act 2009 provides goals, strategies for protecting, restoring and enhancing the Delta Ecosystem:

- **Coequal Goals**
- **Target Characteristics:**
 - Viable populations of native resident and migratory species
 - Functional corridors for migratory species
 - Diverse and biologically appropriate habitats for ecosystem process
 - Reduced threats and stresses on the Delta Ecosystem
 - Conditions conducive to meeting or exceeding recovery plans and salmon doubling goals
- **Strategies to achieve characteristics:**
 - Restore large areas of interconnected habitats within the Delta and its watershed by 2100.
 - Establish migratory corridors for fish, birds, and other ecosystems.
 - Improve water quality for drinking, ag, and ecosystem
 - Restore habitat necessary to avoid a net loss of migratory bird habitat and, where feasible, increase migratory bird habitat to promote viable populations of migratory birds.
- **Use best available science**
- **Quantified or measurable targets**
- **Science-based, transparent, and formal adaptive management strategy**

Delta Plan Chapter 4 Provides a Vision for a Restored Delta:

“Achieving the coequal goal of ecosystem protection, restoration, and enhancement means successfully establishing **a resilient, functioning estuary and surrounding terrestrial landscape capable of supporting viable populations of native resident and migratory species with diverse and biologically appropriate habitats, functional corridors, and ecosystem processes.**”

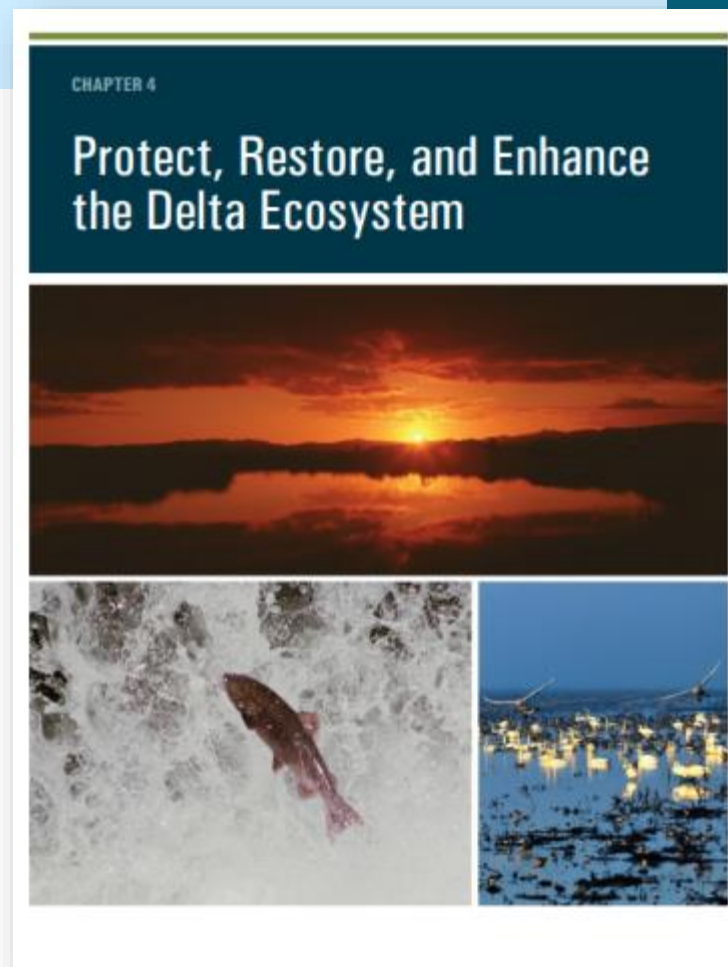


What's Currently in the Delta Plan?

Core Strategies

- Create more natural functional flows
- Restore habitat
- Improve water quality to protect the ecosystem
- Prevent introduction of and manage non-native species impacts
- Improve hatcheries and harvest management

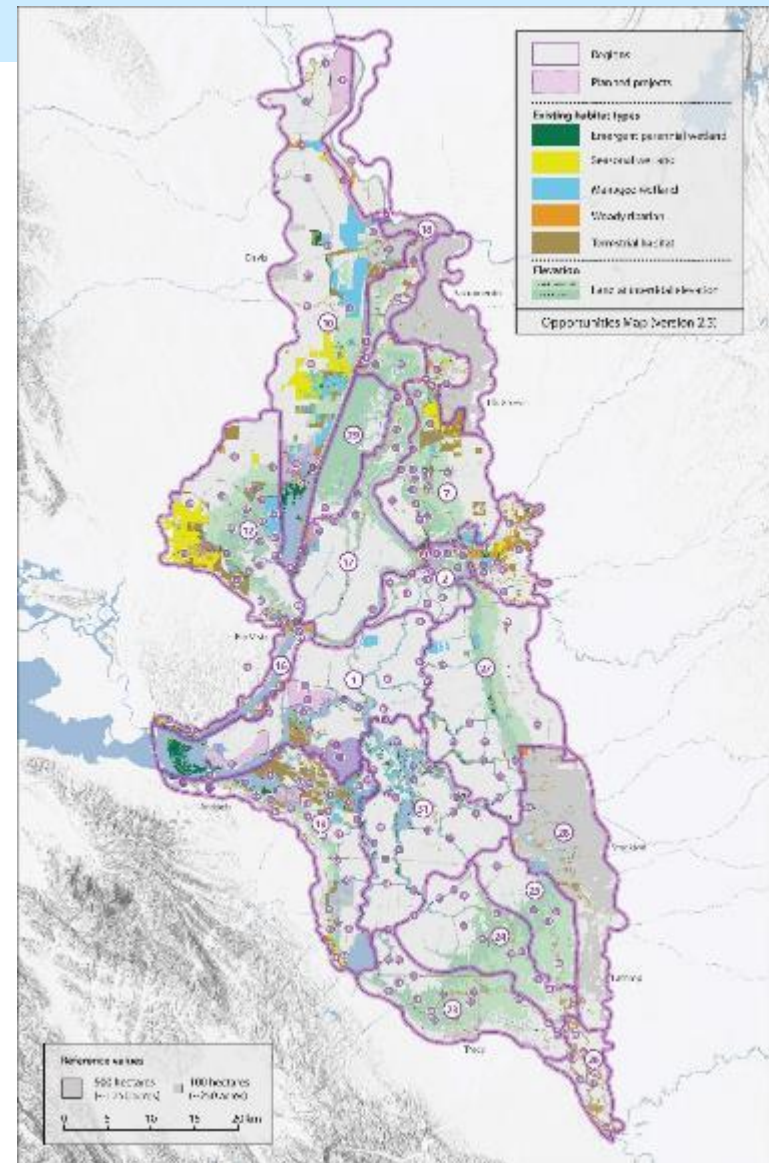
Regulatory policy and recommendation framework that provides high-level restoration guidance (e.g., ER P2, Appendix 3) & focuses on the protection of opportunities for ecosystem restoration



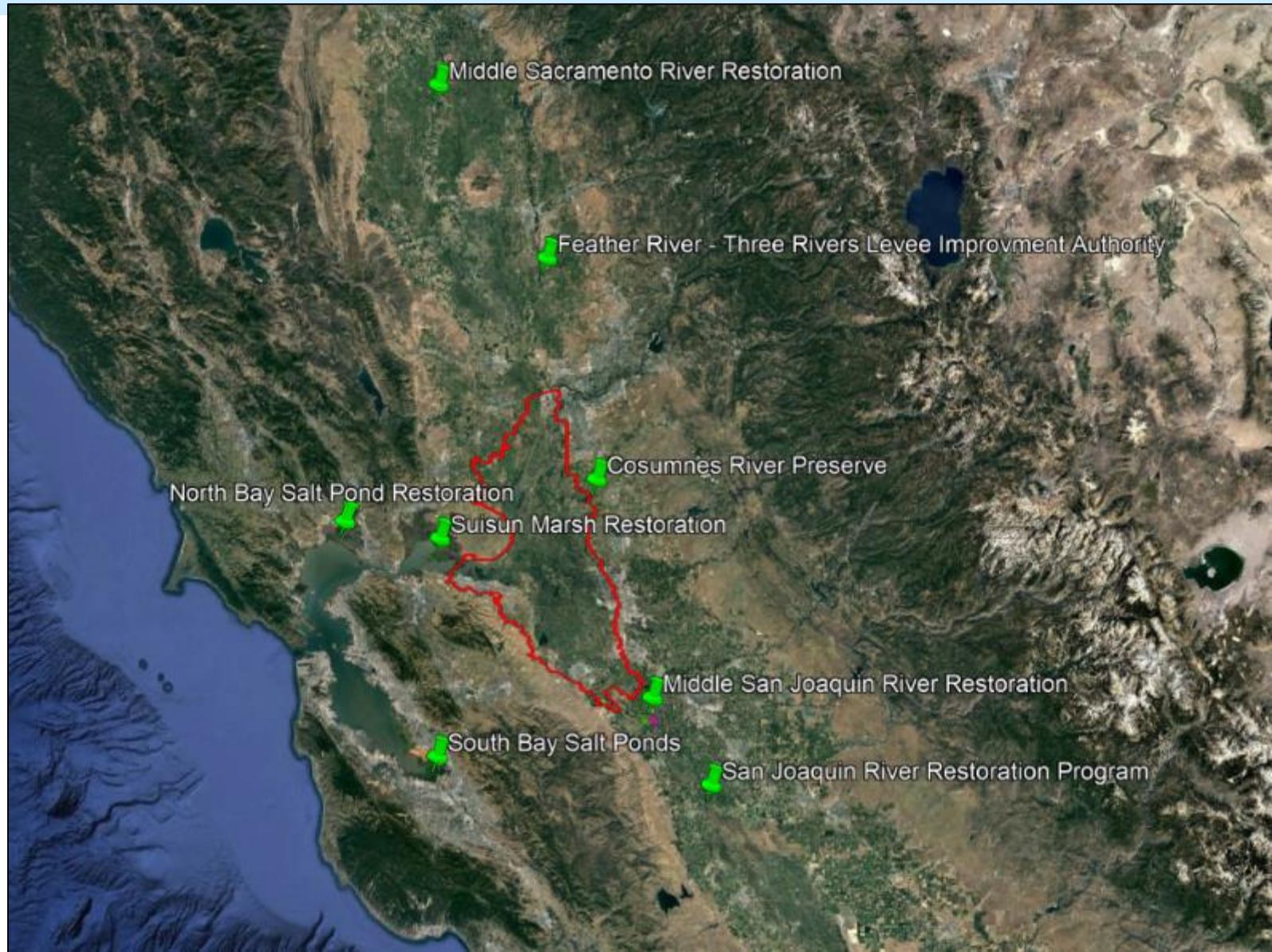
Updating the Delta Plan to Achieve the Vision

Regulatory policy and recommendations which guide and align ecosystem restoration planning activities and public funding:

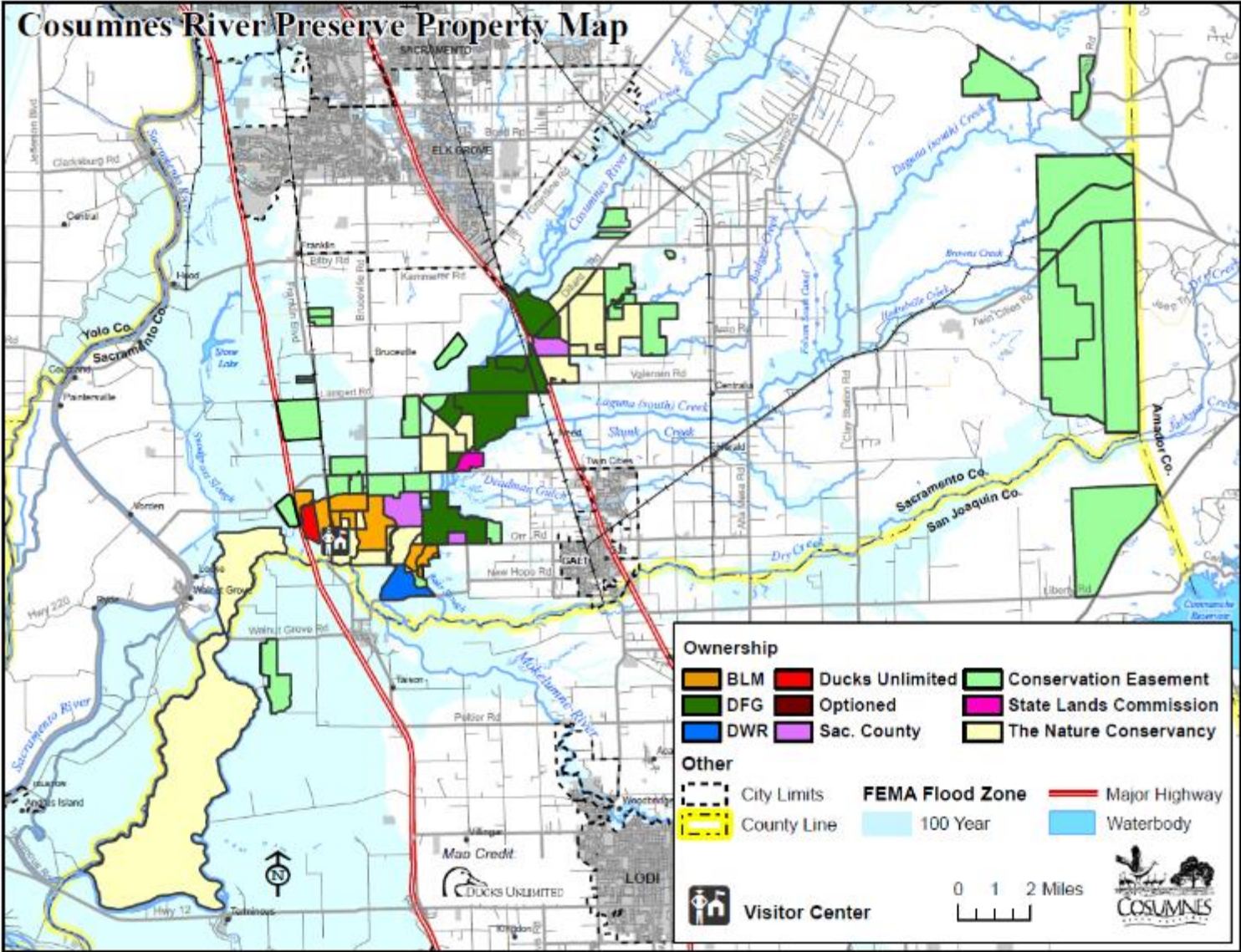
- **What:** Priority restoration actions & conservation targets focused on ecosystem uplift
- **Where:** Regional land-use/land ownership and landscape suitability
- **When:** 2030, 2050, 2100
- **How:** Facilitating implementation through improved processes and interagency coordination



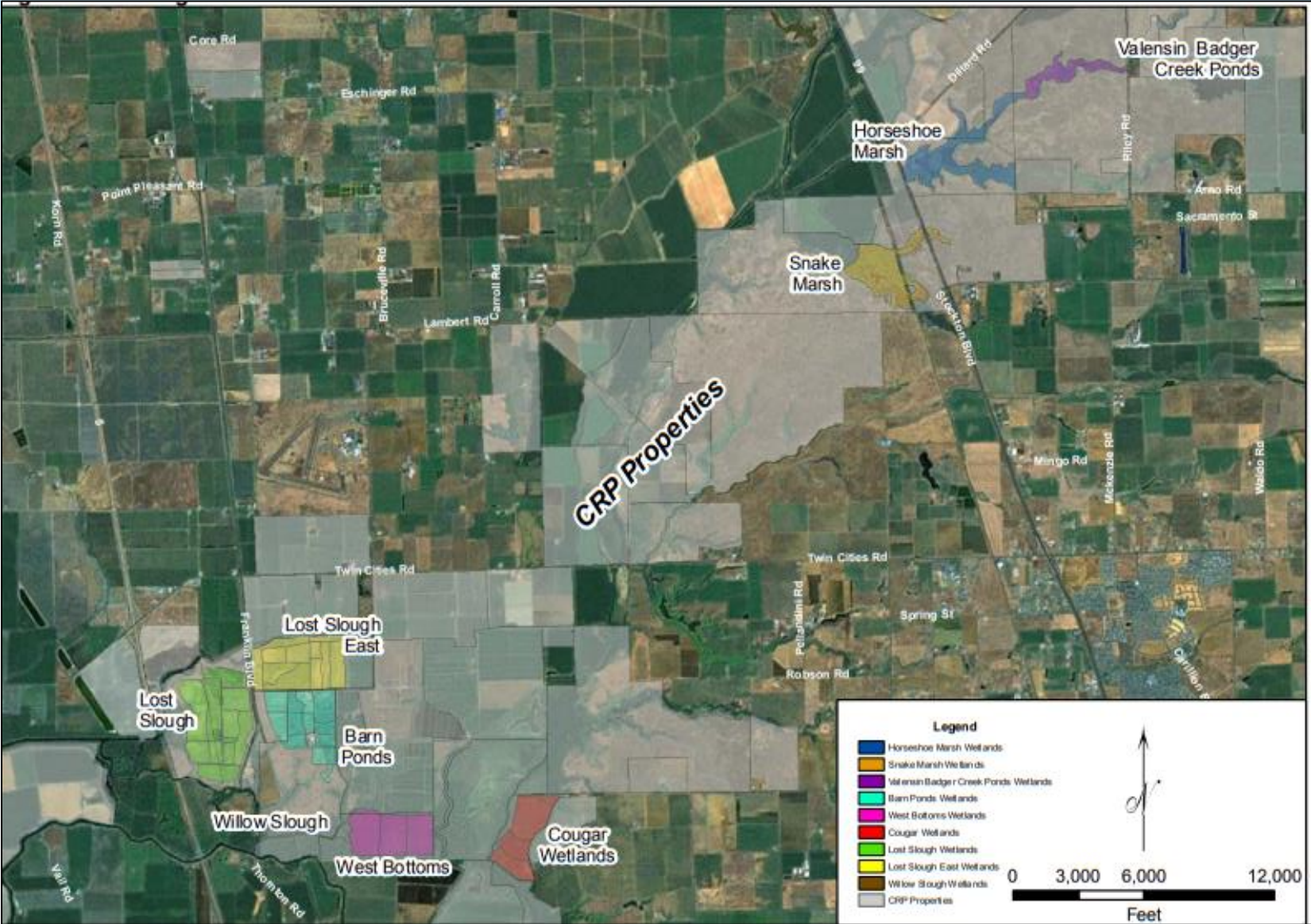
Examples of Regional Ecosystem Restoration Efforts



Cosumnes River Preserve:



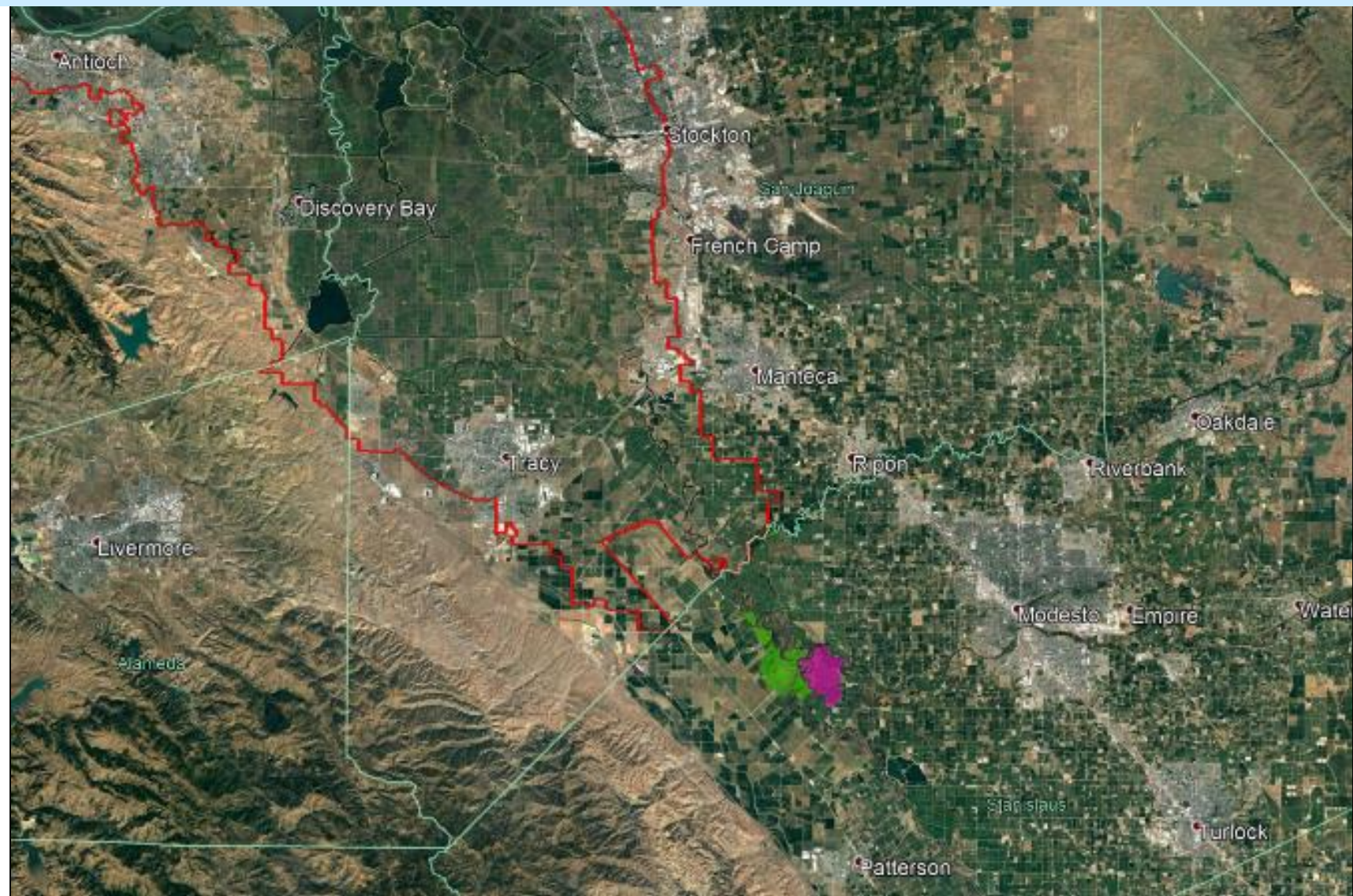
Cosumnes River Preserve:



Cosumnes River Preserve

- Riparian and wetland restoration
- Managed wetland and agriculture – 50,000 acres
- 7 landowning partners – public and private
- Multiple funding sources
- Shared long-term management
- Rich history of informing restoration through research and monitoring

Middle San Joaquin River – Hidden Valley and Dos Rios Ranch:



Middle San Joaquin River – Hidden Valley and Dos Rios Ranch:



Hidden Valley and Dos Rios Ranches



Middle San Joaquin River – Hidden Valley and Dos Rios Ranch:

- Riverine and riparian restoration – 2,100 acres
- Multiple objectives
- Private and public partners
- Research and monitoring components
- Multiple funding sources
- Long-term management
- Provides permitting support for infrastructure

South Bay Salt Pond Restoration Project:



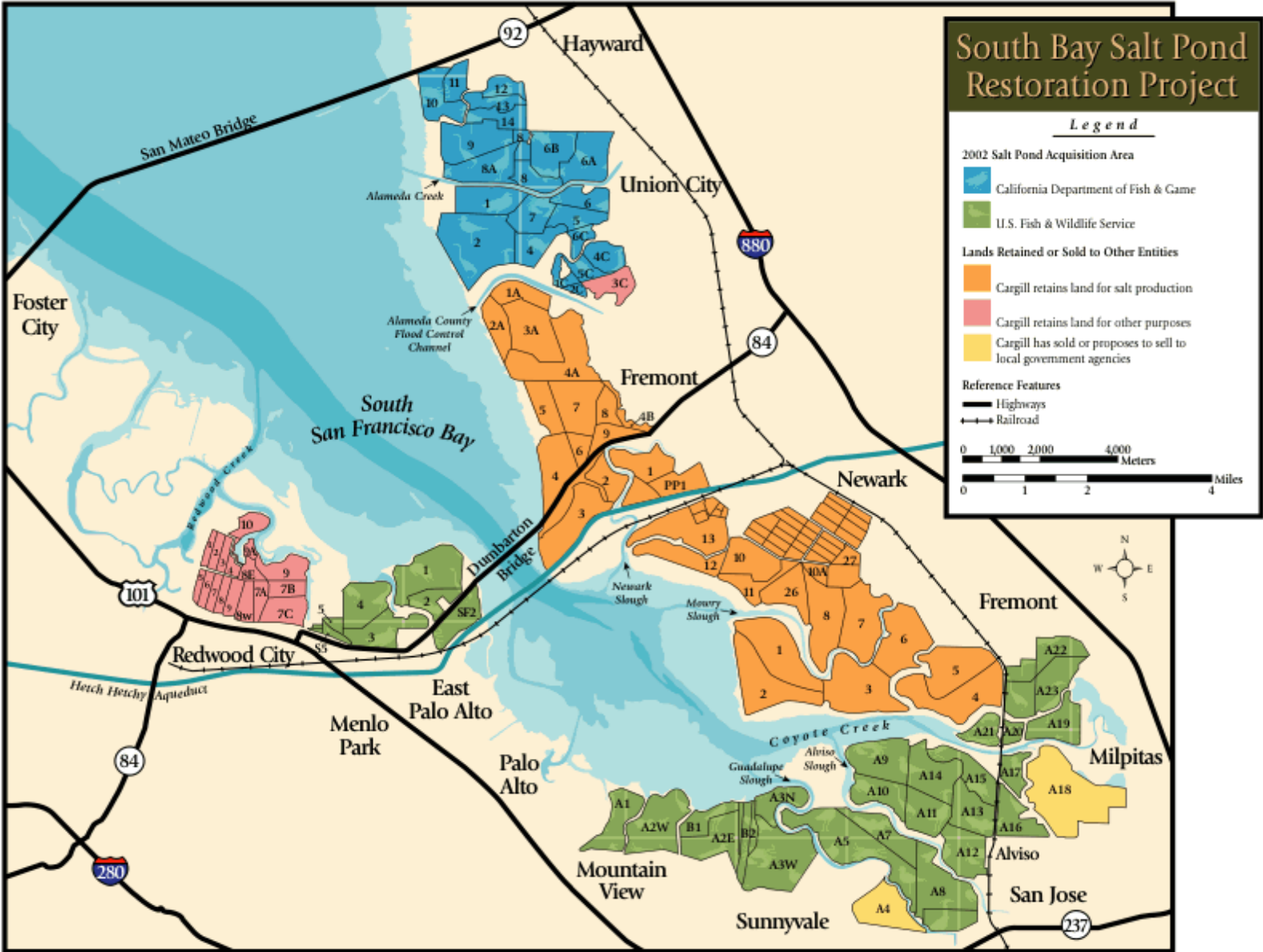
April 2008 September 2009 May 2010 October 2010

SALT POND A21 SOUTH BAY SALT POND RESTORATION PROJECT

Kite aerial photographs of a small channel in the northeast corner following the 2006 breach to tidal flow. Field of view is ~ 120 feet. . C. Benton.



South Bay Salt Pond Restoration Project:



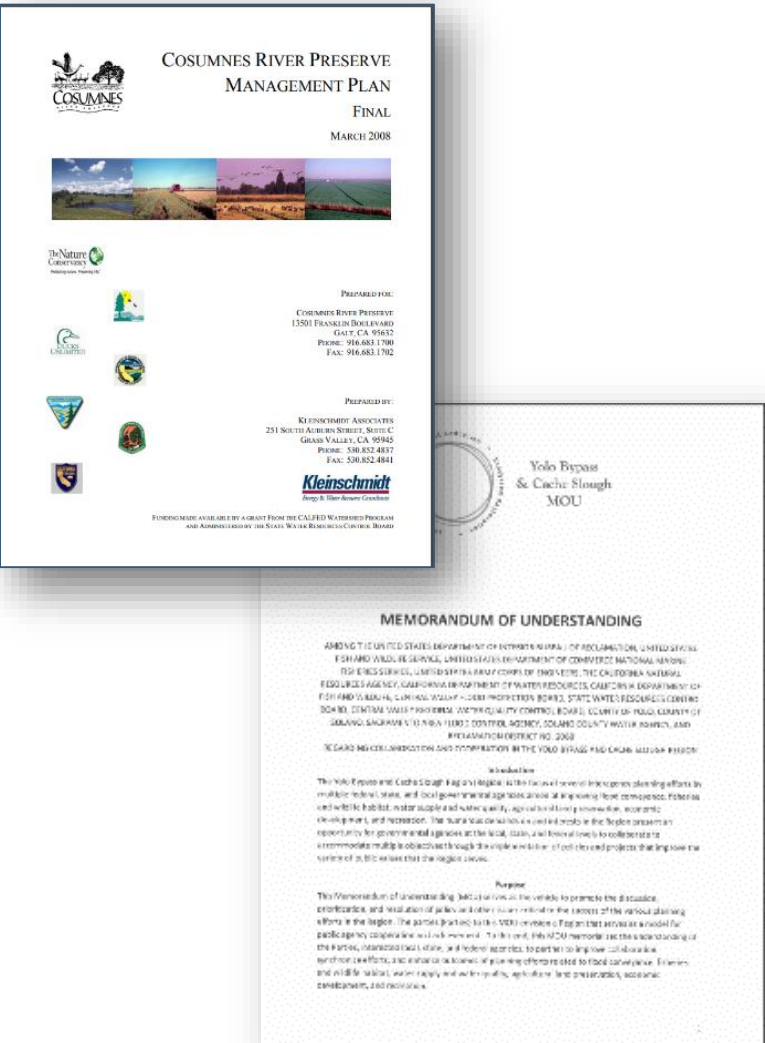
South Bay Salt Pond Restoration Project:

- Tidal marsh and adjacent upland restoration – 16,500 acres
- Multiple objectives
- Research and monitoring components
- Private and public partners
- Multiple funding sources
- Long-term management

Institutional Policy Approaches

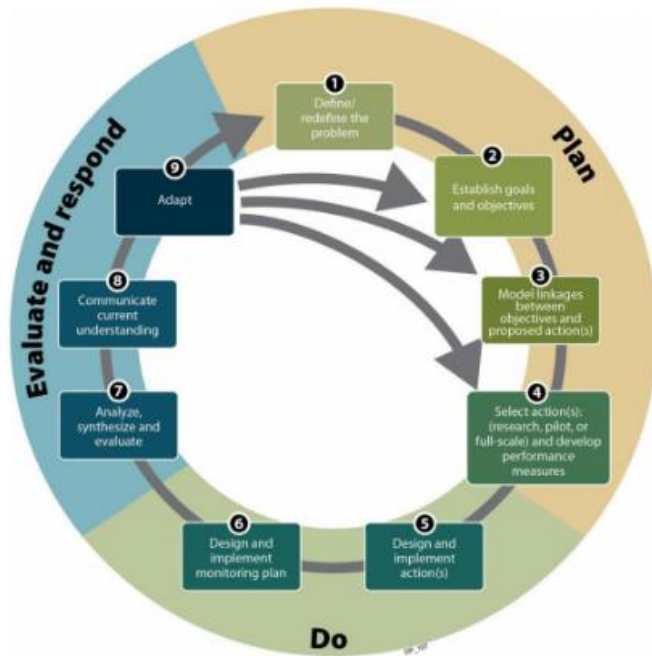


Policies and Recommendations related to Institutional/Implementation



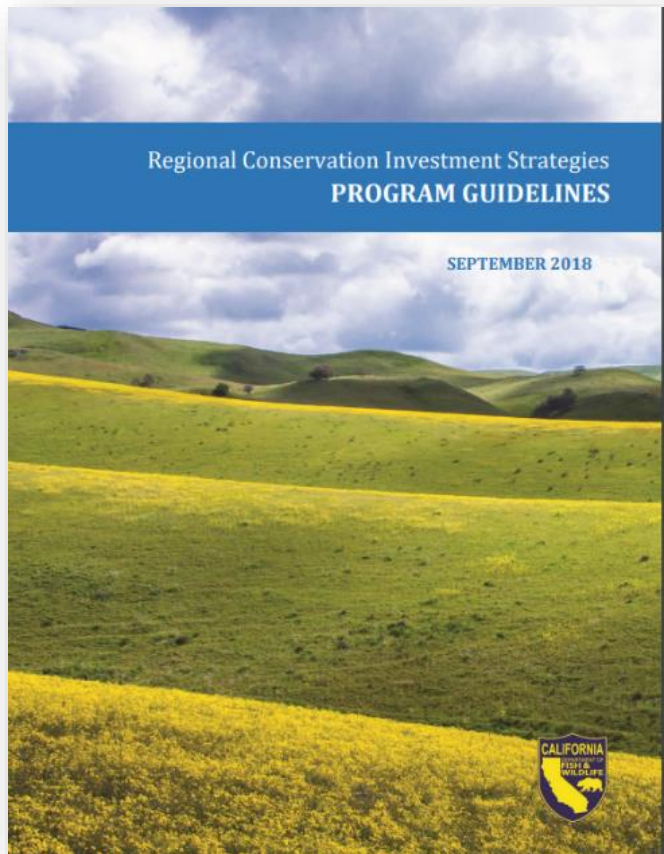
Partnerships and Leadership: Staff is proposing an approach that seeks interagency alignment of restoration planning and funding, and utilizes public-private partnerships, strong local stakeholder engagement, and leadership from the highest levels of government.

Policies and Recommendations related to Institutional/Implementation



Science Support for Restoration: Staff is proposing an approach to restoration that includes the use of science-based conceptual models to inform project design, coordinated monitoring efforts to address critical research needs, and applied adaptive management that ensures projects meet their design objectives.

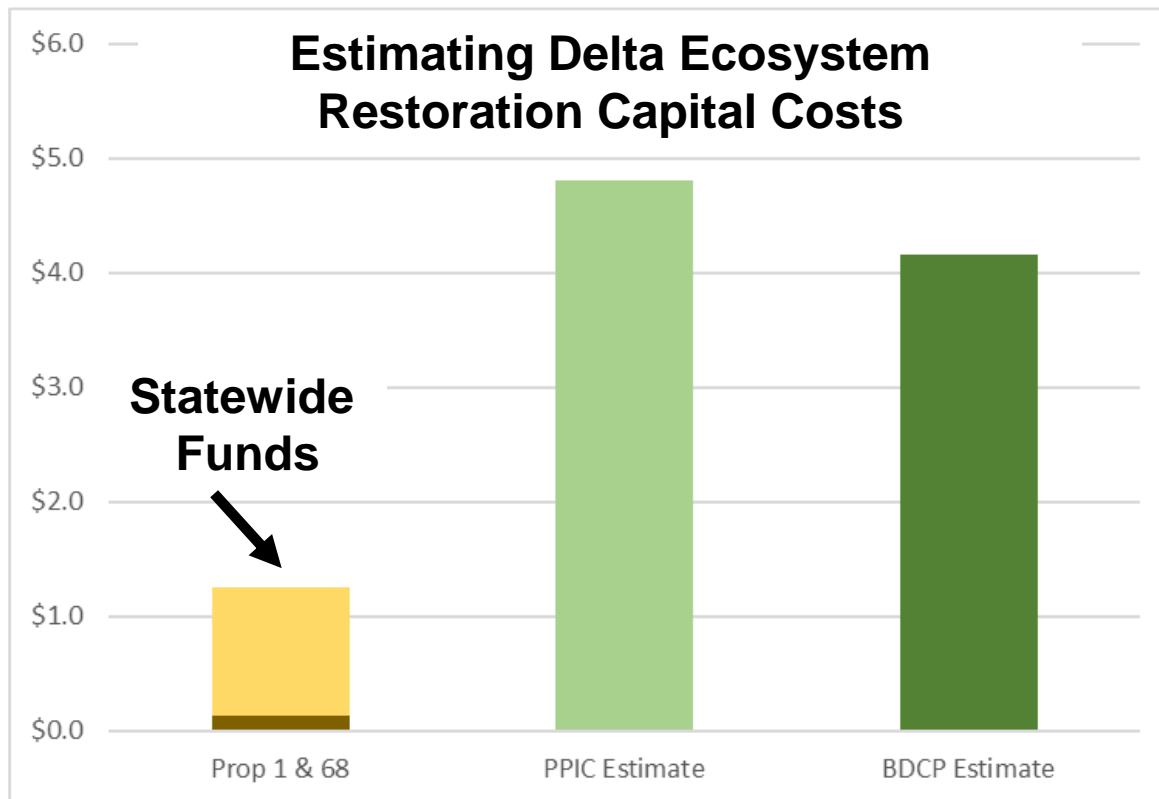
Policies and Recommendations related to Institutional/Implementation



Permitting Support for Restoration:
Staff is proposing an approach to increase efficiency through programmatic permitting and establishing coordination groups with state and federal agency participants.

Policies and Recommendations related to Institutional/Implementation

Long-term Funding: Staff is proposing an approach that engages agencies with restoration authority and seeks to align and support existing restoration expenditures, and identifies and pursues long-term funding sources (e.g., state, federal).



PPIC. 2014. Paying for water in California. Technical Report.

Discussion